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CLINICAL PROFILE OF CLIENTS PRESENTING WITH OBSTETRIC EMERGENCIES

Nursing

Rinu Abraham* Senior Lecturer,Department of Obstetrics and Gynaecological Nursing, Malankara Orthodox Syrian Church College of Nursing, Kolenchery.*Corresponding Author

Namitha Subrahmanyam Department of Obstetrics and Gynaecological Nursing, Malankara Orthodox Syrian Church College of Nursing, Kolenchery.

Jisha Joseph Department of Obstetrics and Gynaecological Nursing, Malankara Orthodox Syrian Church College of Nursing, Kolenchery.

ABSTRACT

Background: Obstetrical emergencies are life threatening medical conditions that occur in pregnancy or during or after labor and delivery which can cause major maternal morbidity with potential catastrophic consequences. The aim of this study was to assess the clinical profile of women presenting with obstetric emergencies in obstetric care units of a tertiary care centre in Ernakulam District, Kerala.

Methods: A retrospective survey was carried out using record analysis of cases presented with selected obstetric emergencies in obstetric care units over a period of one year in a tertiary care hospital in the state of Kerala, India. A structured clinical profile checklist was prepared to collect the data. Data were analyzed using 'R' software.

Results: Out of 2728 deliveries during a one year period from December 2015 to November 2016, a total of 127 women were found to have encountered some form of obstetric emergencies. Postpartum haemorrhage (2.75%) was the leading emergency condition followed by Abruptio placenta (1.09%). The overall incidence of obstetric emergencies was 4.65% of all deliveries during this study period. There were no cases of maternal deaths reported among the cases investigated. Records showed that Abruptio placenta had worst neonatal outcome with greater prevalence of prematurity being 73.33%, fetal distress (16.66%) and neonatal death (13.33%) respectively.

Conclusion: Postpartum hemorrhage and Abruptio placenta remains as the most common entities requiring intensive care among obstetric patients. A multidisciplinary team involvement is essential to deal with these clinical entities to avoid occurrence of maternal morbidity and mortality. Active implementation of emergency obstetric care and incorporation of obstetric drill to update the caregiver's skill lays a strong foundation for safe fetomaternal outcome.

KEYWORDS

Clinical Profile, Obstetric Emergencies

INTRODUCTION

Safe motherhood is one of the most cherished dreams of every woman and making this dream come true is the prime duty of all obstetric care providers. Pregnancy is associated with physiological and anatomical changes that usually occur uneventfully in majority of women. However, these changes can cause major maternal morbidity with potential catastrophic consequences.[1] There are a number of illnesses and disorders of pregnancy that can threaten the well-being of both mother and child. Obstetrical emergencies may occur during pregnancy, active labor, and after delivery. These can be caused by a number of factors, including stress, trauma, genetics, and other variables. In some cases, past medical history, including previous pregnancies and deliveries, may help an obstetrician anticipate the possibility of complications.[2] According to World Health Organization (WHO) estimates, MMR varies up to 100-fold, from approximately 10 in developed countries to approximately 1,000 in least developed.[3] Obstetric emergencies are the leading causes of maternal mortality worldwide and particularly in developing countries where literacy, poverty, lack of antenatal care, poor transport facilities and inadequate equipment/staffing combine to magnify the problem.[4] The care of critically ill pregnant women requires knowledge not only of the primary disease process and its treatment in the non-pregnant women, but also a thorough understanding of the changes that the maternal peripartum physiology requires of such care.[5]

The management of emergencies at hospital is usually the responsibility of obstetricians. As more maternity care is now given in the community, however, midwives, general practitioners, and paramedics may be involved and must know the outlines of management of emergencies and the possible complications.[6] This study was intended to assess the clinical profile of clients presented with selected obstetric emergencies in a tertiary care setting during one year period from December 2015 to November 2016.

METHODS

This was a retrospective survey conducted in obstetric units of a tertiary care hospital in the state of Kerala, India, in the year 2016. A total of 2728 cases admitted for delivery during one year period from December 2015 till November 2016 were surveyed among which the case records of all women presented with selected obstetric emergencies were surveyed using a structured clinical profile checklist. The study was approved by Institutional Ethics Committee. Demographic and clinical characteristics were assessed and the data were analysed using 'R' software.

RESULTS

Table-I: Characteristics of women presented with obstetric emergencies

n=127

Sl.No	Demographic variables	Frequency (f)	Percentage (%)
1 a	Age in years: <20	01	0.79
b	20-24	27	21.26
c	25-29	56	44.09
d	>30	43	33.86
2 a	Working status: Working	37	29.13
b	Not working	90	70.87
3 a	Antenatal care: Yes	119	93.7
b	No	08	6.3
4 a	Parity: Primigravida	106	83.46
b	Multigravida	21	16.54
5 a	Gestation: Single	114	89.76
b	Multiple	06	4.73
c	Not Applicable	07	5.51
6 a	Period of gestation: <28	09	7.09
b	28-32	11	8.66
c	32.1-37	26	20.47
d	≥37	81	63.78
7 a	Admission status: Direct admission	106	83.46
b	Referred	21	16.54

A greater portion (44.09%) of the subjects belonged to the age group of 25-29 years. Most of them (70.87%) were working women. About 93.7% of subjects reported attendance to regular antenatal care. Majority (83.46%) of women were primigravida. In the present pregnancy, majority (89.76%) of them carried a single fetus. The onset of labour was at term (>37 weeks) for most (63.87%) of the subjects. 16.54% of the cases sought admission as referred cases.

Table-II: Frequency& Percentage distribution of obstetric emergencies during one year period

n=2728

Sl.No	Obstetric Emergencies	Frequency (f)	Percentage (%)
1	Postpartum hemorrhage (PPH)	75	2.75
2	Abruptio placenta	30	1.09
3	Shoulder dystocia (SD)	16	0.59
4	Eclampsia	06	0.22
5	Obstetric Shock	03	0.11

Out of 2728 cases admitted for delivery in obstetric care units during a one year period from December 2015 till November 2016, a total of 127 women presented with some form of obstetric emergencies. The percentage of women who had experienced obstetric emergencies, include Postpartum Hemorrhage (2.75%), Abruptio placenta (1.09%), Shoulder dystocia (0.59%), Eclampsia (0.22%) and Obstetric Shock (0.11%).

Table-III: Maternal and neonatal outcome in obstetric emergencies

n=127

Sl. No	Obstetric Emergencies	Maternal outcome		Neonatal outcome					
		Maternal death		Prematurity		Fetal distress		Neonatal death	
		f	%	f	%	f	%	f	%
1	Postpartum hemorrhage (PPH)	0	0	15	20	03	04	02	2.66
2	Abruptio placenta	0	0	22	73.33	05	16.66	04	13.33
3	Shoulder dystocia (SD)	0	0	0	0	0	0	0	0
4	Eclampsia	0	0	01	50	0	0	0	0
5	Obstetric Shock	0	0	0	0	0	0	0	0

Fortunately there were no cases of maternal deaths reported among the cases studied. Regarding neonatal outcome, it was estimated that a greater portion (73.33%) of women who had Abruptio placenta delivered preterm babies. The proportion of prematurity reported in Eclampsia and Postpartum Hemorrhage were 50% and 20% cases respectively. There were no cases of prematurity observed in other obstetric emergencies studied. It was found that 16.66% cases of fetal distress were reported in Abruptio placenta and a lesser portion (04%) in Postpartum hemorrhage. Regarding neonatal death, the proportion of newborn deaths reported in Abruptio placenta and Postpartum hemorrhage were 13.33% and 2.66% respectively. Records showed that Abruptio Placenta had worst neonatal outcome with greater prevalence of prematurity (73.33%), fetal distress (16.66%) and neonatal death (13.33%).

DISCUSSION

Obstetric emergencies can occur suddenly and unexpectedly even though woman in the reproductive years is young and healthy. Emergency obstetric care is one of the recent strategies promoted by World Health Organization (WHO) for the reduction of maternal mortality and morbidity in developing countries.[7] As often most obstetric complications cannot be predicted or prevented during pregnancy, thus diagnosis and appropriate interventions during labor and delivery are essential.[8]

These emergencies are encountered not only in perinatal period as postpartum haemorrhage, ruptured uterus, sepsis, retained placenta, etc., but also in early pregnancy as ruptured ectopic, complications of abortion, and ante partum eclampsia, being equally fatal.[9] This study showed that obstetric emergencies prevailed with an incidence of 4.65% of all deliveries. Saha R pointed out a similar figure of 4.45% in a study conducted at Kathmandu Medical College Teaching Hospital in 2014.[11] The leading emergency in the study setting was Postpartum hemorrhage (2.75%), which is contradictory with the findings of Saha R in Nepal (2014), where obstetric hemorrhage was found in very huge proportion (62.5%). In a WHO analysis, it was found that hemorrhage was the leading cause of maternal deaths in developing countries.[12] The variation in this finding may be related to obstetric care provided at the centre.

Abruptio placenta was detected in 1.09% of all cases studied. A high proportion (14.28%) was reported by Singh A (2009) in a study conducted at Pt. JNM Medical College, Raipur, which analysed fetomaternal outcome in obstetric emergencies.[13]Shoulder dystocia were reported among 0.54% of cases in the present study. Despite its low incidence, Shoulder dystocia still represents a huge risk of morbidity for both the mother and fetus. Even though several studies showed the existence of both major and minor risk factors that may complicate a delivery, Shoulder dystocia remains an unpreventable and unpredictable obstetric emergency.[14]

In the present study, the occurence of Eclampsia and Obstetric Shock being (0.22%) and (0.11%) respectively. Some women had more than one complication. Nevertheless, the women were counted only once, regardless of the number of obstetric complications they experienced and preexisting medical conditions, they have had. Therefore it is relatively important to ensure the availability of skilled attendance at every delivery, safe blood transfusion, free delivery scheme, safe abortion services, etc to prevent obstetric complications.[15]

Analysis of emergency obstetric conditions was done by evaluating incidence, various contributing factors, and feto maternal outcome.[16] Fortunately, there were no maternal deaths reported during this one year period. However, Adelaja and Taiwo reported contradictory findings in a study conducted at a tertiary health centre in Nigeria, where obstetric emergencies accounted for 70.6% of maternal deaths.[17] Better obstetric surveillance may be the reason for no maternal deaths associated with obstetric emergencies in the study setting. Maternal death is an avoidable tragedy and can be prevented by making emergency obstetric care an easy access to woman even in the most remote areas of India.[18]

However, with regard to neonatal outcome, it was estimated that a greater portion (73.33%) of women who had Abruptio placenta delivered preterm babies. The proportion of prematurity reported in Eclampsia and Postpartum hemorrhage were 50% and 20% cases respectively. Overall prematurity was present in 29% of cases. Guguloth K et al (2016) reported a similar figure in a retrospective study performed in Guntur medical College.[17] In Abruptio placenta, 16.66% cases of fetal distress was reported and a lesser portion (04%) in Postpartum hemorrhage. Anupama et al (2013) stated that fetal distress (46.80%) was the most common undesirable outcome among the subjects studied.[18] Neonatal mortality was reported in Abruptio placenta (13.33%) and Postpartum hemorrhage (2.66%) in the present study. The overall rate of neonatal mortality is 5%. Bangal VB et al (2012) found a significantly higher perinatal mortality of 14.8% among women presented with obstetric emergencies.[19]

CONCLUSION

In spite of best efforts, some obstetric emergencies do occur. Postpartum hemorrhage and Abruptio placenta were the frequent obstetric emergencies among the cases studied. Training of nurse midwives, village health workers and doctors in early identification and management of common obstetric emergencies can reduce the maternal and perinatal morbidity and mortality to some extent. Prompt and effective management of complicated pregnancies and labor are now seen as central focus to reduce maternal and fetal mortality in developing countries. With negligence and mismanagement of these grave conditions by unskilled persons, dreams of safe motherhood ends with morbidity and mortality of mother and the baby.

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